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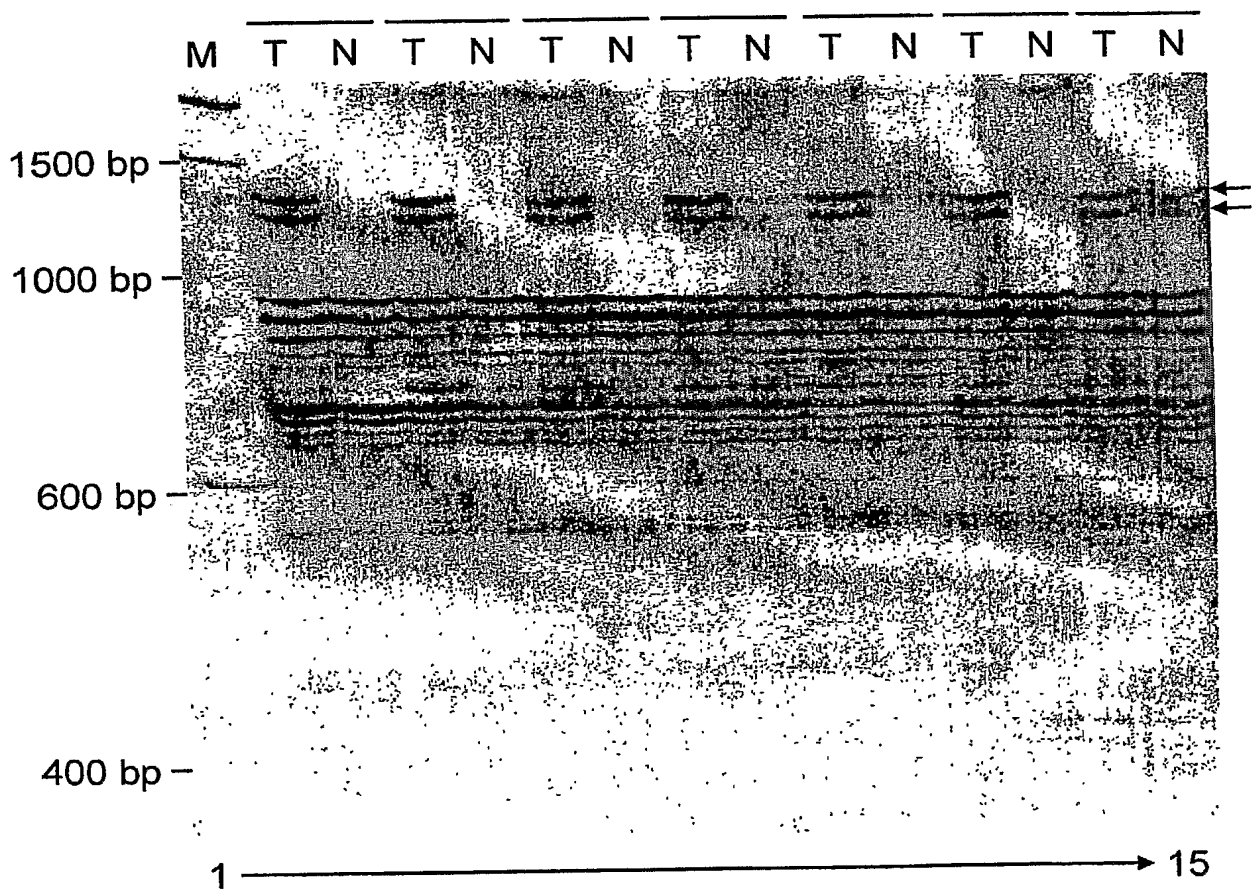


FIG.1

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FISH

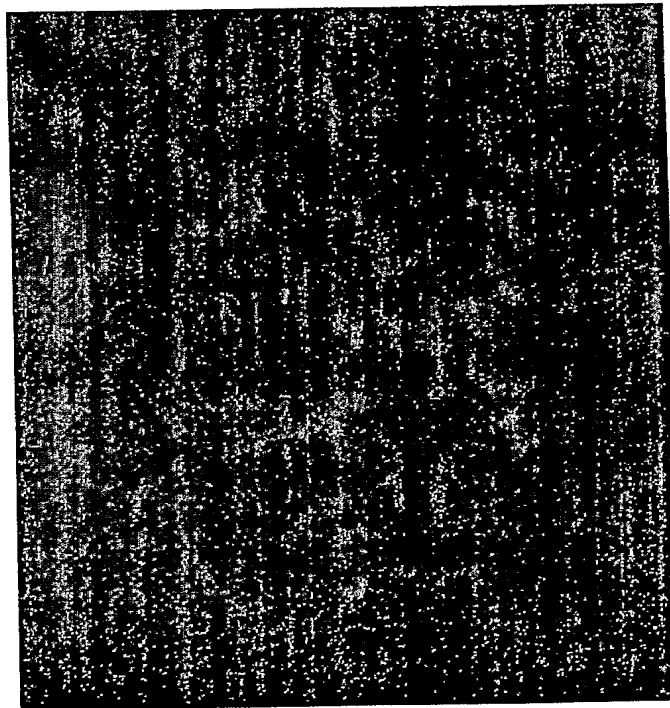


FIG.2A

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## IDIOGRAMS

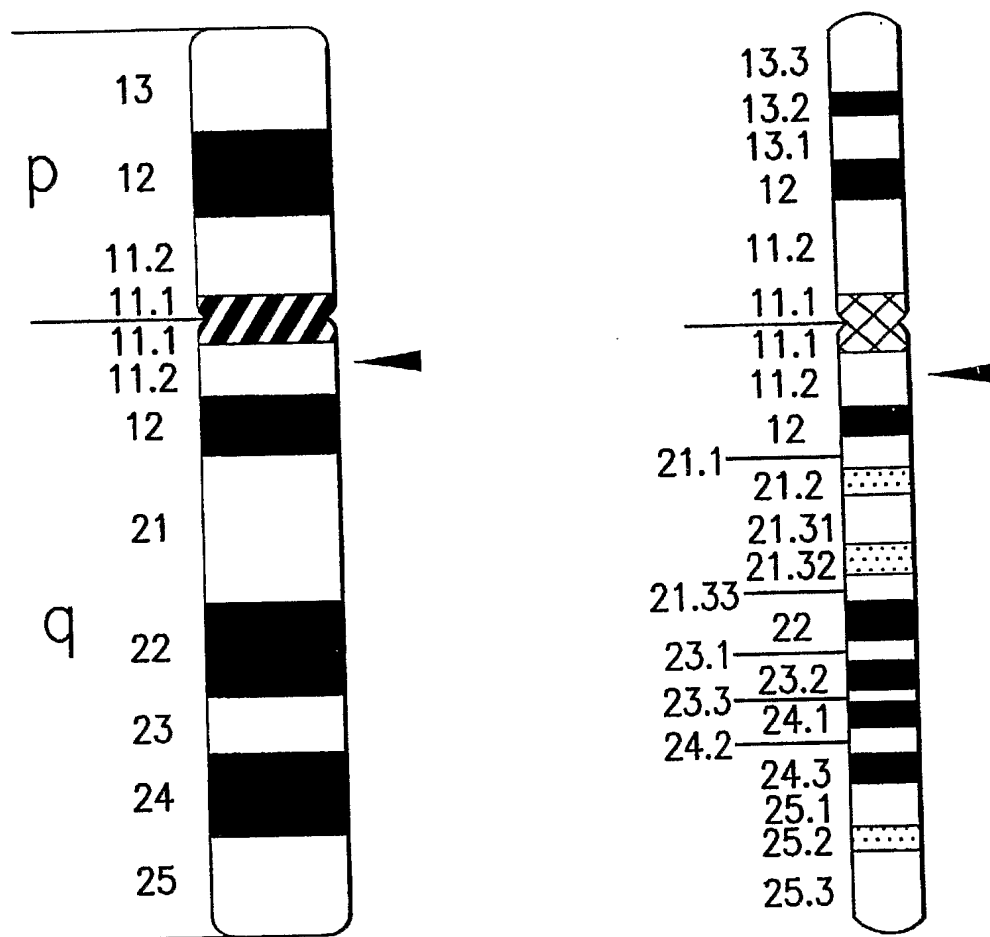


FIG.2B

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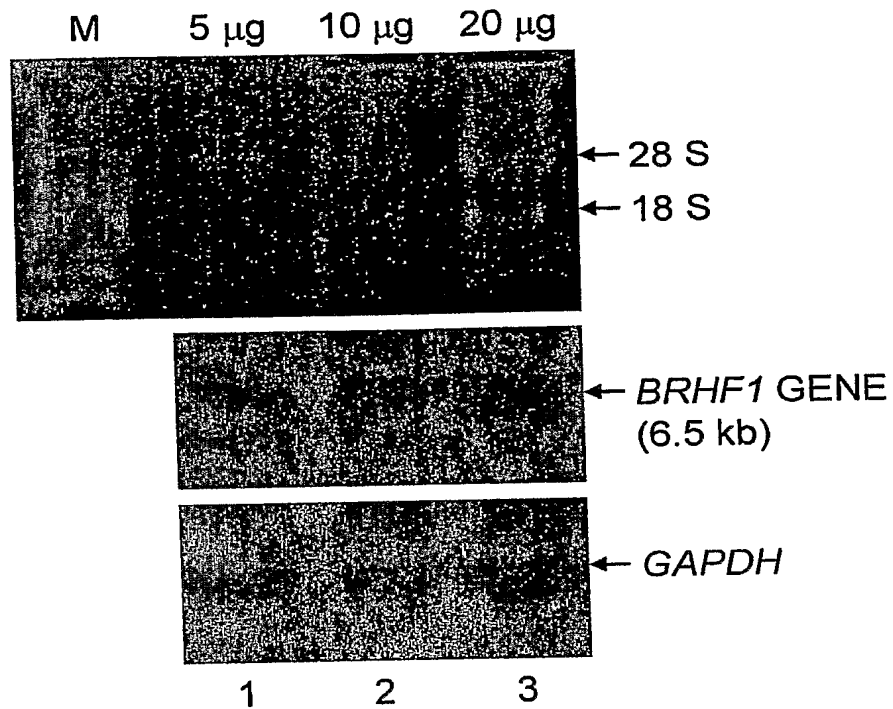


FIG.3A

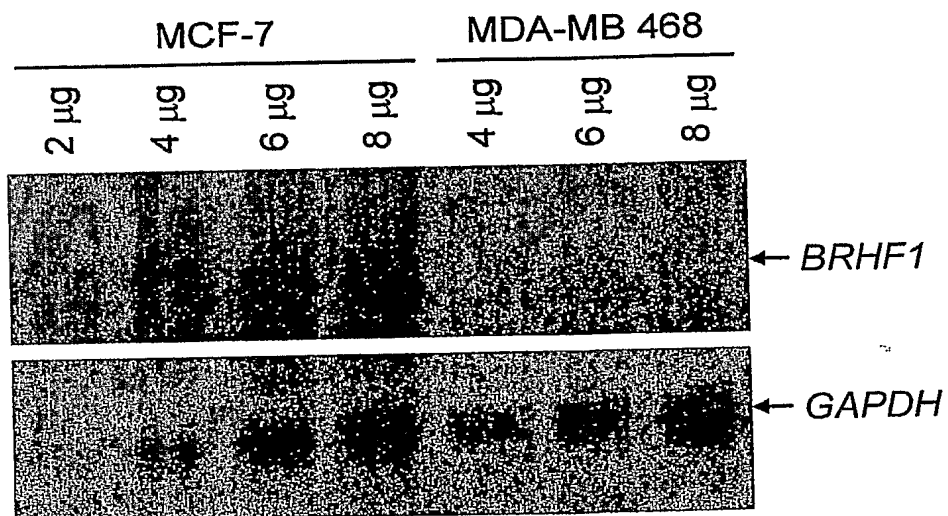


FIG.3B

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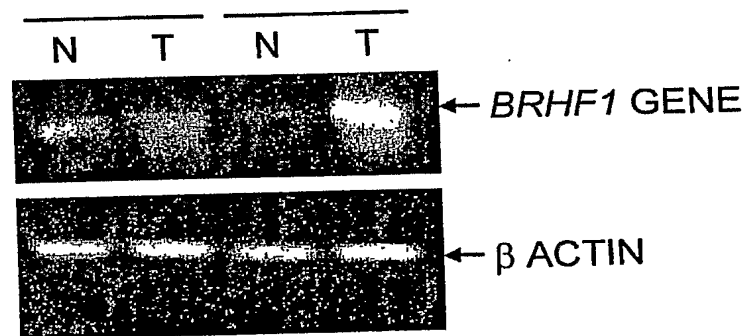


FIG.4

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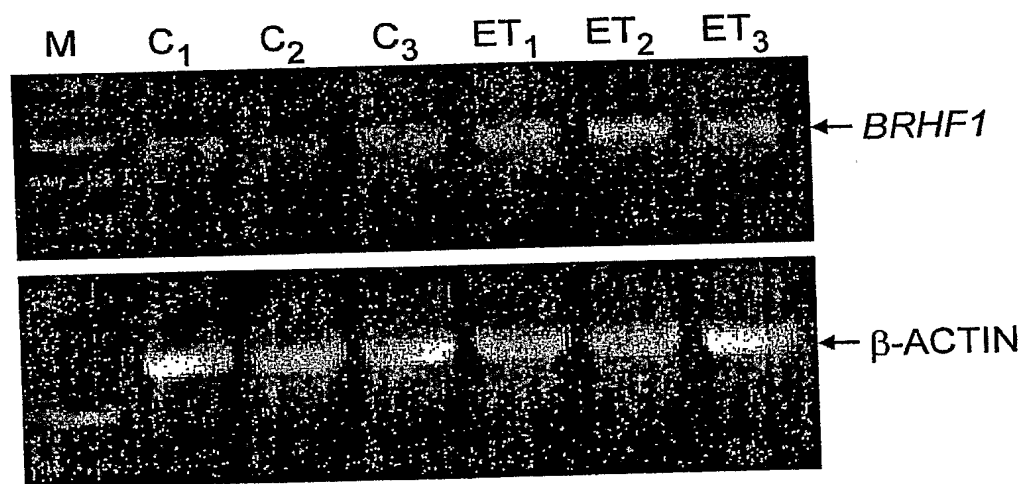


FIG.5

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M   T   G   S   N   S   H   I   T   I   L   T   L   N   I   N   G   L   18
ATG ACA GGA TCA AAT TCA CAC ATA ACA ATA TTA ACT TTA AAT ATA AAT GGA CTA 54

N   S   A   I   K   R   H   R   L   A   S   W   I   K   S   Q   D   P   36
AAT TCT GCA ATT AAA AGA CAC AGA CTG GCA AGT TGG ATA AAG AGT CAA GAC CCA 108

S   V   C   C   I   Q   E   T   H   L   T   C   R   D   T   H   R   L   54
TCA GTG TGC TGT ATT CAG GAA ACC CAT CTC ACG TGC AGA GAC ACA CAT AGG CTC 162

K   I   K   G   W   R   K   I   Y   Q   A   N   G   K   Q   K   K   A   72
AAA ATA AAA GGA TGG AGG AAG ATC TAC CAA GCC AAT GGA AAA CAA AAA AAG GCA 216

G   V   A   I   L   V   S   D   K   T   D   F   K   P   T   K   I   K   90
GGG GTT GCA ATC CTA GTC TCT GAT AAA ACA GAC TTT AAA CCA ACA AAG ATC AAA 270

R   D   K   E   G   H   Y   I   M   V   K   G   S   I   Q   Q   E   E   108
AGA GAC AAA GAA GGC CAT TAC ATA ATG GTA AAG GGA TCA ATT CAA CAA GAG GAG 324

L   T   I   L   N   I   Y   A   P   N   T   G   A   P   R   F   I   K   126
CTA ACT ATC CTA AAT ATT TAT GCA CCC AAT ACA GGA GCA CCC AGA TTC ATA AAG 378

Q   V   L   S   D   L   Q   R   D   L   D   S   H   T   L   I   M   G   144
CAA GTC CTC AGT GAC CTA CAA AGA GAC TTA GAC TCC CAC ACA TTA ATA ATG GGA 432

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FIG.6A

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D F N T P L S T L D R S T R Q K V N 162  
 GAC TTT AAC ACC CCA CTG TCA ACA TTA GAC AGA TCA ACG AGA CAG AAA GTC AAC 486  
  
 K D T Q E L N S A L H Q A D L I D I 180  
 AAG GAT ACC CAG GAA TTG AAC TCA GCT CTG CAC CAA GCA GAC CTA ATA GA C AIC 540  
  
 Y R T L H P K S T E Y T F F S A P H 198  
TAC AGA ACT CTC CAC CCC AAA TCA ACA GAA TAT ACA TTT TTT TCA GCA CCA CAC 594  
  
 H T Y S K I D H I V G S K A L L S K 216  
 CAC ACC TAT TCC AAA ATT GAC CAC ATA GTT GGA AGT AAA GCT CTC CTC AGC AAA 648  
  
 C K R T E I I T N Y L S D H S A I K 234  
TGT AAA AGA ACA GAA ATT ATA ACA AAC TAT CTC TCA GAC CAC AGT GCA ATC AAA 702  
  
 L E L R I K N L T Q S R S T T W K L 252  
CTA GAA CTC AGG ATT AAG AAT CTC ACT CAA AGC CGC TCA ACT ACA TGG AAA CTG 756  
  
 N N L L L N D Y W V H N E M K A E I 270  
AAC AAC CTG CTC CTG AAT GAC TAC TGG GTA CAT AAC GAA ATG AAG GCA GAA ATA 810  
  
 K M F F E T N E N K D T T Y Q N L W 288  
AAG ATG TTC TTT GAA ACC AAC GAG AAC AAA GAC ACC ACA TAC CAG AAT CTC TGG 864  
  
 D A F K A V C R G K F I A L N A Y Q 306  
GAC GCA TTC AAA GCA GTG TGT AGA GGG AAA TTT ATA GCA CTA AAT GCC TAC CAG 918

FIG.6B



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R K Q E R S K I D T L T S Q L K E L 324  
AGA AAG CAG GAA AGA TCC AAA ATT GAC ACC CTA ACA TCA CAA TTA AAA GAA CTA 972

E K Q E Q T H S K A S R R Q E I T K 342  
GAA AAG CAA GAG CAA ACA CAT TCA AAA GCT AGC AGA AGG CAA GAA ATA ACT AAA 1026

I R A E L K E I E T Q K T L Q K I N 360  
ATC AGA GCA GAA CTG AAG GAA ATA GAG ACA CAA AAA ACC CTT CAA AAA ATC AAT 1080

E S R S W F F E R I N K I D R P L A 378  
GAA TCC AGG AGC TGG TTT TTT GAA AGG ATC AAC AAA ATT GAT AGA CCG CTA GCA 1134

R L I K K R E K N Q I D T I K N D 396  
AGA CTA ATA AAG AAA AGA GAG AAG AAT CAA ATA GAC ACA ATA AAA AAT GAT 1188

K G D I T T D P T E I Q T T I R E Y 414  
AAA GGG GAT ATC ACC ACC GAT CCC ACA GAA ATA CAA ACT ACC ATC AGA GAA TAC 1242

Y K H L Y A N K L E N L E E M D T F 432  
TAC AAA CAC CTC TAC GCA AAT AAA CTA GAA AAT CTG GAA GAA ATG GAT ACA TTC 1296

L D T Y T L P R L N Q E E V E S L N 450  
CTC GAC ACA TAC ACT CTC CCA AGA CTA AAC CAG GAA GAA GTT GAA TCT CTG AAT 1350

R P I T G S E I V A I I N S L P T K 468  
CGA CCA ATA ACA GGC TCT GAA ATT GTG GCA ATA ATC AAT AGT TTA CCA ACC AAA 1404

FIG.6C

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K S P G P D G F T A E F Y Q R Y K E 486  
AAG AGT CCA GGA CCA GAT GGA TTC ACA GCC GAA TTC TAC CAG AGG TAC AAG GAG 1458  
  
 E L V P F L L K L F Q S I E K E G I 504  
GAA CTG GTA CCA TTC CTT CTG AAA CTA TTC CAA TCA ATA GAA AAA GAG GGA ATC 1512  
  
 L P N S F Y E T S I I L I P K P G R 522  
CTC CCT AAC TCA TTT TAT GAG ACC AGC ATC ATT CTG ATA CCA AAG CCG GGC AGA 1566  
  
 D T T K K E N F R P I S L M N I D A 540  
GAC ACA ACC AAA AAA GAG AAT TTT AGA CCA ATA TCC TTG ATG AAC ATT GAT GCA 1620  
  
 K I L N K I L A N R I Q Q H I K K L 558  
AAA ATC CTC AAT AAA ATA CTG GCA AAC CGA ATC CAG CAG CAC ATC AAA AAG CTT 1674  
  
 I H H D Q V G F I P G M Q G W F N I 576  
ATC CAC CAT GAT CAA GTG GGC TTC ATC CCT GGG ATG CAA GGC TGG TTC AAT ATA 1728  
  
 R K S I N V I Q H I N R A K D K N H 594  
CGC AAA TCA ATA AAT GTA ATC CAG CAT ATA AAC AGA GCC AAA GAC AAA AAC CAC 1782  
  
 M I I S I D A E K A F D K I Q Q P F 612  
ATG ATT ATC TCA ATA GAT GCA GAA AAA GCC TTT GAC AAA ATT CAA CAA CCC TTC 1836  
  
 M L K T L N K L G I D G T Y F K I I 630  
 ATG CTA AAA ACT CTC AAT AAA TTA GGT ATT GAT GGG ACG TAT TTC AAA ATA ATA 1890

FIG.6D

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R A I Y D K P T A N I I L N G Q K L 648  
 AGA GCT ATC TAT GAC AAA CCC ACA GCC AAT ATC ATA CTG AAT GGA CAA AAA CTG 1944  
  
 E A F P L K T G T R Q G C P L S P L 666  
 GAA GCA TTC CCT TTG AAA ACT GGC ACA AGA CAG GGA TGC CCT CTC TCA CCG CTC 1998  
  
 L F N I V L E V L A R A I R Q E K E 684  
 CTA TTC AAC ATA GTG TTG GAA GTT CTG GCC AGG GCA ATC AGG CAG GAG AAG GAA 2052  
  
 I K G I Q L G K E E V K L S L F A D 702  
 ATA AAG GGT ATT CAA TTA GGA AAA GAG GAA GTC AAA TTG TCC CTG TTT GCA GAC 2106  
  
 D M I V Y L E N P I V S A Q N L L K 720  
 GAC ATG ATT GTT TAT CTA GAA AAC CCC ATC GTC TCA GCC CAA AAT CTC CTT AAG 2160  
  
 L I S N F S K V S G Y K I N V Q K S 738  
 CTG ATA AGC AAC TTC AGC AAA GTC TCA GGA TAC AAA ATC AAT GTA CAA AAA TCA 2214  
  
 Q A F L Y T N N R Q T E S Q I M S E 756  
 CAA GCA TTC TTA TAC ACC AAC AAC AGA CAA ACA GAG AGC CAA ATC ATG AGT GAA 2268  
  
 L P F T I A S K R I K Y L G I Q L T 774  
 CTC CCA TTC ACA ATT GCT TCA AAG AGA ATA AAA TAC CTA GGA ATC CAA CTT ACA 2322  
  
 R D V K D L F K E N Y K P L L K E I 792  
 AGG GAT GTG AAG GAC CTC TTC AAG GAG AAC TAC AAA CCA CTG CTC AAG GAA ATA 2376

FIG.6E

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K E E T N K W K N I P C S W V G R I 810  
 AAA GAG GAG ACA AAC AAA TGG AAG AAC ATT CCA TGC TCA TGG GTA GGA AGA ATC 2430  
  
 N I V K M A I L P K V I Y R F N A I 828  
 AAT ATC GTG AAA ATG GCC ATA CTG CCC AAG GTA ATT TAC AGA TTC AAT GCC ATC 2484  
  
 P I K L P M T F F T E L E K T T L K 846  
 CCC ATC AAG CTA CCA ATG ACT TTC TTC ACA GAA TTG GAA AAA ACT ACT TTA AAG 2538  
  
 F I W N Q' K R A R I A K S I L S Q K 864  
 TTC ATA TGG AAC CAA AAA AGA GCC CGC ATT GCC AAG TCA ATC CTA AGC CAA AAG 2592  
  
 N K A G G I T L P D F K L Y Y K A T 882  
 AAC AAA GCT GGA GGC ATC ACA CTA CCT GAC TTC AAA CTA TAC TAC AAG GCT ACA 2646  
  
 V T K T A W Y W Y Q N R D I D Q W N 900  
 GTA ACC AAA ACA GCA TGG TAC TGG TAC CAA AAC AGA GAT ATA GAT CAA TGG AAC 2700  
  
 R T E P S E I M P H I Y N Y L I F D 918  
 AGA ACA GAG CCC TCA GAA ATA ATG CCG CAT ATC TAC AAC TAT CTG ATC TTT GAC 2754  
  
 K P E K N K Q W G K D S L F N K W C 936  
 AAA CCT GAG AAA AAC AAG CAA TGG GGA AAG GAT TCC CTG TTT AAT AAA TGG TGC 2808  
  
 W E N W L A I C R K L K L D P F L T 954  
 TGG GAA AAC TGG CTA GCC ATA TGT AGA AAG CTG AAA CTG GAT CCC TTC CTT ACA 2862

FIG.6F

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P Y T K I N S R W I K D L N V K P K 972  
 CCT TAT ACA AAA ATC AAT TCA AGA TGG ATT AAA GAT TTA AAC GTT AAA CCT AAA 2916  
  
 T I K T L E E N L G I T I Q D I G V 990  
 ACC ATA AAA ACC CTA GAA GAA AAC CTA GGC ATT ACC ATT CAG GAC ATA GGC GTG 2970  
  
 G K D F M S K T P K A M A T K D K I 1008  
 GGC AAG GAC TTC ATG TCC AAA ACA CCA AAA GCA ATG GCA ACA AAA GAC AAA ATT 3024  
  
 D K W D L I K L K S F C T A K E T T 1026  
 GAC AAA TGG GAT CTA ATT AAA CTA AAG AGC TTC TGC ACA GCA AAA GAA ACT ACC 3078  
  
 I R V N R Q P T T W E K I F A T Y S 1044  
 ATC AGA GTG AAC AGG CAA CCT ACA ACA TGG GAG AAA ATT TTT GCA ACC TAC TCA 3132  
  
 S D K G L I S R I Y N E L K Q I Y K 1062  
 TCT GAC AAA GGG CTA ATA TCC AGA ATC TAC AAT GAA CTC AAA CAA ATT TAC AAG 3186  
  
 K K T N N P I K K W A K D M N R H F 1080  
 AAA AAA ACA AAC AAC CCC ATC AAA AAG TGG GCG AAG GAC ATG AAC AGA CAC TTC 3240  
  
 S K E D I Y A A K K H M K K C S S 1098  
 TCA AAA GAA GAC ATT TAT GCA GCC AAA AAA CAC ATG AAG AAA TGC TCA TCA TCA 3294  
  
 L A I R E M Q I K T T M R Y H L T P 1116  
 CTG GCC ATC AGA GAA ATG CAA ATC AAA ACC ACT ATG AGA TAT CAT CTC ACA CCA 3348

FIG.6G

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V R M A I I K K S G N N R C W R G C 1134
GTT AGA ATG GCA ATC ATT AAA AAG TCA GGA AAC AAC AGG TGC TGG AGA GGA TGC 3402

G E I G T L L H C W D C K L V Q P 1152
GGA GAA ATA GGA ACA CTT TTA CAC TGT TGG TGG GAC TGT AAA CTA GTT CAA CCA 3456

L W K S V W R F L R D L E L E I P F 1170
TTG TGG AAG TCA GTG TGG CGA TTC CTC AGG GAT CTA GAA CTA GAA ATA CCA TTT 3510

D P A I P L L G I Y P N E Y K S C C 1188
GAC CCA GCC ATC CCA TTA CTG GGT ATA TAC CCA AAT GAG TAT AAA TCA TGC TGC 3564

Y K D T C T R M F I A A L F T I A K 1206
TAT AAA GAC ACA TGC ACA CGT ATG TTT ATT GCG GCA CTA TTC ACA ATA GCA AAG 3618

T W N Q P K C P T M I D W I K K M W 1224
ACT TGG AAC CAA CCC AAA TGT CCA ACA ATG ATA GAC TGG ATT AAG AAA ATG TGG 3672

H I Y T M E Y Y A A I K N D E F I S 1242
CAC ATA TAC ACC ATG GAA TAC TAT GCA GCC ATA AAA AAT GAT GAG TTC ATA TCC 3726

F V G T W M K L E T I I L S K L S Q 1260
TTT GTA GGG ACA TGG ATG AAA TTG GAA ACC ATC ATT CTC AGT AAA CTA TCG CAA 3780

E Q K T K H R I F S L I G G N * 1276
GAA CAA AAA ACC AAA CAC CGC ATA TTC TCA CTC ATA GGT GGG AAT TGA 3828

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FIG. 6H